

## QUARTILE PLOT

### PURPOSE

Generates a subsample quartile versus subsample index plot.

### DESCRIPTION

The upper quartile is the 75th percentile (i.e., the point where 75% of the data values are below that point) and the lower quartile is the 25th percentile (i.e., the point where 25% of the data values are below that point). The subsample quartile is the quartile of the data in the subsample. The quartile plot is used to answer the question: "Does the subsample spread change over different subsamples?" It consists of:

Vertical axis = subsample quartile;  
Horizontal axis = subsample index.

In addition, a horizontal line is drawn representing the full sample quartile. The appearance of the 2 traces is controlled by the first 2 settings of the LINES, CHARACTERS, SPIKES, BARS, and similar attributes.

### SYNTAX

<UPPER/LOWER> QUARTILE PLOT <y> <x>            <SUBSET/EXCEPT/FOR qualification>

where <y> is the response (= dependent) variable;

<x> is the subsample identifier variable (this variable appears on the horizontal axis);

LOWER specifies a lower quartile plot and UPPER specifies an upper quartile plot;

and where the <SUBSET/EXCEPT/FOR qualification> is optional.

### EXAMPLES

UPPER QUARTILE PLOT Y X

LOWER QUARTILE PLOT Y X1 SUBSET X1 < 12

### DEFAULT

None

### SYNONYMS

None

### RELATED COMMANDS

CHARACTERS	=	Sets the type for plot characters.
LINES	=	Sets the type for plot lines.
MEAN PLOT	=	Generates a mean plot.
SD PLOT	=	Generates a standard deviation plot.
BOX PLOT	=	Generates a box plot.
XBAR CHART	=	Generates a xbar control chart.
PLOT	=	Generates a data or function plot.

### APPLICATIONS

Exploratory Data Analysis

### IMPLEMENTATION DATE

88/2

## PROGRAM

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.PURPOSE--GENERATE A QUARTILE PLOT OF POINT BARROW FREON-11 DATA
SKIP 50
SET READ FORMAT 3F4.0,F5.0,F6.0,F3.0,2F9.0
READ PBF11.DAT YEAR DAY BOT SD F11 FLAG WV CO2
.
RETAIN YEAR DAY BOT SD F11 WV CO2 FLAG SUBSET FLAG 0
LET MONTH=INT(DAY/30.25)+1
.
TITLE QUARTILE PLOT
XLIMITS 0 15
YLIMITS 1 1.01
CHARACTER U U
LINE BLANK SOLID
UPPER QUARTILE PLOT WV MONTH
PRE-ERASE OFF
CHARACTER L L
LOWER QUARTILE PLOT WV MONTH

```

